

IN THE CLAIMS

1. (Currently Amended) An apparatus for compressing data, comprising:
a cell site element associated with a base transceiver station and operable to receive a communications flow communicated by a mobile station, the cell site element including a route processor (RP) and a forwarding path (FP) element, wherein the RP is operable to communicate with a proxy element in order to determine if an incoming packet is associated with an internet protocol (IP) such that, in cases where the incoming packet is non-IP based, the proxy element performs a mapping between a non-IP based protocol associated with the incoming packet and an IP protocol in order to generate an IP compatible packet to be processed by the FP element and communicated to a next destination, wherein the cell site element is operable to extract a high-level data link control (HDLC) payload from the packet and to perform a compression process on the HDLC payload in order to reduce a number of bytes associated with the incoming packet, the cell site element being further operable to build a key that maps the HDLC payload associated with the packet to the key, the key being broken into segments that are positioned into a selected one or more of a source internet protocol (IP) address field, a user datagram protocol (UDP) source port field, and a UDP destination port field of a UDP packet, the UDP packet being sent to the RP of the cell site element such that it may be directed to a next destination.
2. (Original) The apparatus of Claim 1, wherein the mapping performed by the proxy element operates to add a selected one or more of a point to point (PPP) header, an IP header, and a user datagram protocol (UDP) header to one or more frames of the incoming packet.
3. (Original) The apparatus of Claim 2, wherein one or more fields of the incoming packet may be mapped to one or more fields of a UDP/IP header.

4. (Original) The apparatus of Claim 2, wherein the proxy element is operable to remove one or more of the PPP header, the IP header, and the UDP header from one or more of the frames before communicating one or more of the frames to a media interface.

5. (Original) The apparatus of Claim 1, wherein the FP element is an acceleration engine operable to process IP communication flows in order to provide a selected one or more of routing operations, quality of service operations, compression operations, and fast-switching operations.

6. (Canceled)

7. (Currently Amended) The apparatus of ~~Claim 6~~ **Claim 1**, wherein the cell site element is operable to construct the UDP packet, and wherein remaining fields of the HDLC payload may be copied and positioned into a payload field of the UDP packet.

8. (Currently Amended) The apparatus of ~~Claim 6~~ **Claim 1**, further comprising: an aggregation node associated with a base station controller and operable to receive a point to point protocol (PPP) over HDLC packet that corresponds to the UDP packet from the cell site element.

9. (Original) The apparatus of Claim 1, wherein the FP processes the IP compatible packet and then returns it to the RP such that it may be communicated over an outgoing interface to a next destination.

10. (Currently Amended) A method for compressing data, comprising:
receiving, at a cell site element, a communications flow communicated by a mobile station;

communicating with a proxy element in order to determine if an incoming packet is associated with an internet protocol (IP); and

performing a mapping between a non-IP based protocol associated with the incoming packet and an IP protocol in cases where the incoming packet is non-IP based in order to generate an IP compatible packet to be processed by a forwarding path element and communicated to a next destination, wherein the cell site element is operable to extract a high-level data link control (HDLC) payload from the packet and to perform a compression process on the HDLC payload in order to reduce a number of bytes associated with the incoming packet, the cell site element being further operable to build a key that maps the HDLC payload associated with the packet to the key, the key being broken into segments that are positioned into a selected one or more of a source internet protocol (IP) address field, a user datagram protocol (UDP) source port field, and a UDP destination port field of a UDP packet, the UDP packet being sent to the RP of the cell site element such that it may be directed to a next destination.

11. (Original) The method of Claim 10, wherein the mapping performed operates to add a selected one or more of a point to point (PPP) header, an IP header, and a user datagram protocol (UDP) header to one or more frames of the incoming packet.

12. (Original) The method of Claim 11, wherein one or more fields of the incoming packet may be mapped to one or more fields of a UDP/IP header.

13. (Original) The method of Claim 11, further comprising:
removing one or more of the PPP header, the IP header, and the UDP header from one or more of the frames before communicating one or more of the frames to a media interface.

14. (Original) The method of Claim 11, wherein the FP element is an acceleration engine operable to process IP communication flows in order to provide a selected one or more of routing operations, quality of service operations, compression operations, and fast-switching operations.

15. (Original) The method of Claim 10, further comprising:
receiving a point to point protocol (PPP) over HDLC packet that corresponds to a UDP packet associated with the incoming packet.

16. (Original) The method of Claim 10, further comprising:
processing the IP compatible packet; and
returning the IP compatible packet to a route processor (RP) such that it may be communicated over an outgoing interface to a next destination.

17. (Currently Amended) A system for compressing data, comprising:
means for receiving a communications flow communicated by a mobile station;
means for communicating with a proxy element in order to determine if an incoming packet is associated with an internet protocol (IP); and
means for performing a mapping between a non-IP based protocol associated with the incoming packet and an IP protocol in cases where the incoming packet is non-IP based in order to generate an IP compatible packet to be processed by a forwarding path element and communicated to a next destination, wherein the means for receiving is operable to extract a high-level data link control (HDLC) payload from the packet and to perform a compression process on the HDLC payload in order to reduce a number of bytes associated with the incoming packet, the means for receiving being further operable to build a key that maps the HDLC payload associated with the packet to the key, the key being broken into segments that are positioned into a selected one or more of a source internet protocol (IP) address field, a user datagram protocol (UDP) source port field, and a UDP destination port field of a UDP packet, the UDP packet being sent to a processor of the means for receiving such that it may be directed to a next destination.

18. (Original) The system of Claim 17, wherein the mapping performed operates to add a selected one or more of a point to point (PPP) header, an IP header, and a user datagram protocol (UDP) header to one or more frames of the incoming packet.

19. (Original) The system of Claim 18, wherein one or more fields of the incoming packet may be mapped to one or more fields of a UDP/IP header.

20. (Original) The system of Claim 18, further comprising:
means for removing one or more of the PPP header, the IP header, and the UDP header from one or more of the frames before communicating one or more of the frames to a media interface.

21. (Original) The system of Claim 18, further comprising:
means for receiving a point to point protocol (PPP) over HDLC packet that
corresponds to a UDP packet associated with the incoming packet.
22. (Original) The system of Claim 18, further comprising:
means for processing the IP compatible packet; and
means for returning the IP compatible packet to a route processor (RP) such that it
may be communicated over an outgoing interface to a next destination.

23. (Currently Amended) Software for compressing data, the software being embodied in a computer readable medium and comprising code such that when executed is operable to:

receive, at a cell site element, a communications flow communicated by a mobile station;

communicate with a proxy element in order to determine if an incoming packet is associated with an internet protocol (IP); and

perform a mapping between a non-IP based protocol associated with the incoming packet and an IP protocol in cases where the incoming packet is non-IP based in order to generate an IP compatible packet to be processed by a forwarding path element and communicated to a next destination, wherein the means for receiving is operable to extract a high-level data link control (HDLC) payload from the packet and to perform a compression process on the HDLC payload in order to reduce a number of bytes associated with the incoming packet, the means for receiving being further operable to build a key that maps the HDLC payload associated with the packet to the key, the key being broken into segments that are positioned into a selected one or more of a source internet protocol (IP) address field, a user datagram protocol (UDP) source port field, and a UDP destination port field of a UDP packet, the UDP packet being sent to the RP of the means for receiving such that it may be directed to a next destination.

24. (Original) The medium of Claim 23, wherein the mapping performed operates to add a selected one or more of a point to point (PPP) header, an IP header, and a user datagram protocol (UDP) header to one or more frames of the incoming packet.

25. (Original) The medium of Claim 24, wherein one or more fields of the incoming packet may be mapped to one or more fields of a UDP/IP header.

26. (Original) The medium of Claim 24, wherein the code is further operable to: remove one or more of the PPP header, the IP header, and the UDP header from one or more of the frames before communicating one or more of the frames to a media interface.

27. (Original) The medium of Claim 24, wherein the code is further operable to:
receive a point to point protocol (PPP) over HDLC packet that corresponds to a UDP
packet associated with the incoming packet.

28. (Original) The medium of Claim 24, wherein the code is further operable to:
process the IP compatible packet; and
return the IP compatible packet to a route processor (RP) such that it may be communicated
over an outgoing interface to a next destination.